

28. The headbox in accordance with claim 26, wherein said high-performance polymer has a tensile strength R_m (DIN 53455) in the range of about 50 N/mm² to about 150 N/mm², and a breaking elongation A_5 (DIN 53455) in a range of about 20 % to about 80 %.

29. The headbox in accordance with claim 28, wherein said tensile strength R_m is in a range of about 70 N/mm² to about 110 N/mm², and said breaking elongation A_5 is in a range of about 30 % to 60 %.

30. The headbox in accordance with claim 26, wherein said high-performance polymer has a modulus of elasticity E (DIN 53457, ISO 527-2) in a range of about 500 N/mm² to about 10,000 N/mm².

31. The headbox in accordance with claim 30, wherein said modulus of elasticity E is in a range of about 1,000 N/mm² to about 5,000 N/mm².

32. The headbox in accordance with claim 26, wherein said high-performance polymer has an impact strength when notched (ISO 179) of about 40 kJ/m² to about 100 kJ/m².

33. The headbox in accordance with claim 32, wherein said impact strength is in a range of about 45 kJ/m² to about 90 kJ/m².

34. The headbox in accordance with claim 26, wherein said high-performance polymer has a moisture acceptance FA (ISO 62) in the range of about 0.05 % to about 2 %.

35. The headbox in accordance with claim 34, wherein said moisture acceptance FA is in a range of about 0.2 % to about 1.2 %.

36. The headbox in accordance with claim 26, wherein said high-performance polymer has a heat resistance WB (DIN 53461) in the range of about 120°C to about 230°C.

37. The headbox in accordance with claim 36, wherein said heat resistance

WB is in a range of about 170°C to about 220°C.

38. The headbox in accordance with claim 26, wherein said high-performance polymer has a low swelling Q in a range of about 0.02 % to about 0.2 %.

39. The headbox in accordance with claim 38, wherein said low swelling Q is a low linear swelling Q_L .

40. The headbox in accordance with claim 26, wherein said high-performance polymer comprises at least one of polyphenylene sulphone (PPSU), polyether sulphone (PES), polyetherimide (PEI), and polysulphone (PSU).

41. The headbox in accordance with claim 26, further comprising a jet end, and said lamella includes a free end arranged to extend to a region of said jet end, wherein said free end comprises an structure less end region with a dull lamella end having a height less than about 0.4 mm.

42. The headbox in accordance with claim 41, wherein said height of said dull lamella end is less than about 0.3 mm.

43. The headbox in accordance with claim 26, further comprising a jet end, and said lamella includes a free end arranged to extend to a region of said jet end, wherein said free end comprises structured end region with a dull lamella end having a height of more than about 0.5 mm.

44. The headbox in accordance with claim 43, wherein said structured end region comprises grooves having at least one of:

(A) at least one of essentially rectangular, wedge-shaped, parabolic, and essentially round structure, and

(B) varying depth.

45. The headbox in accordance with claim 43, wherein at least said lamella end is constructed of said at least one high-performance polymer.

46. The headbox in accordance with claim 26, wherein said lamella is

constructed of said high-performance polymer in a homogenous structure.

47. The headbox in accordance with claim 26, further comprising a sectioned stock density control.

48. The headbox in accordance with claim 26, wherein said headbox is sized for a flow speed greater than about 1,500 m/s.

49. The headbox in accordance with claim 48, wherein said flow speed is greater than about 1,800 m/s.

50. The headbox in accordance with claim 26, wherein said lamella is arranged as a separating lamella in a multi-layered headbox.